# NOTES ON RARE NEW YORK STATE PLANTS.

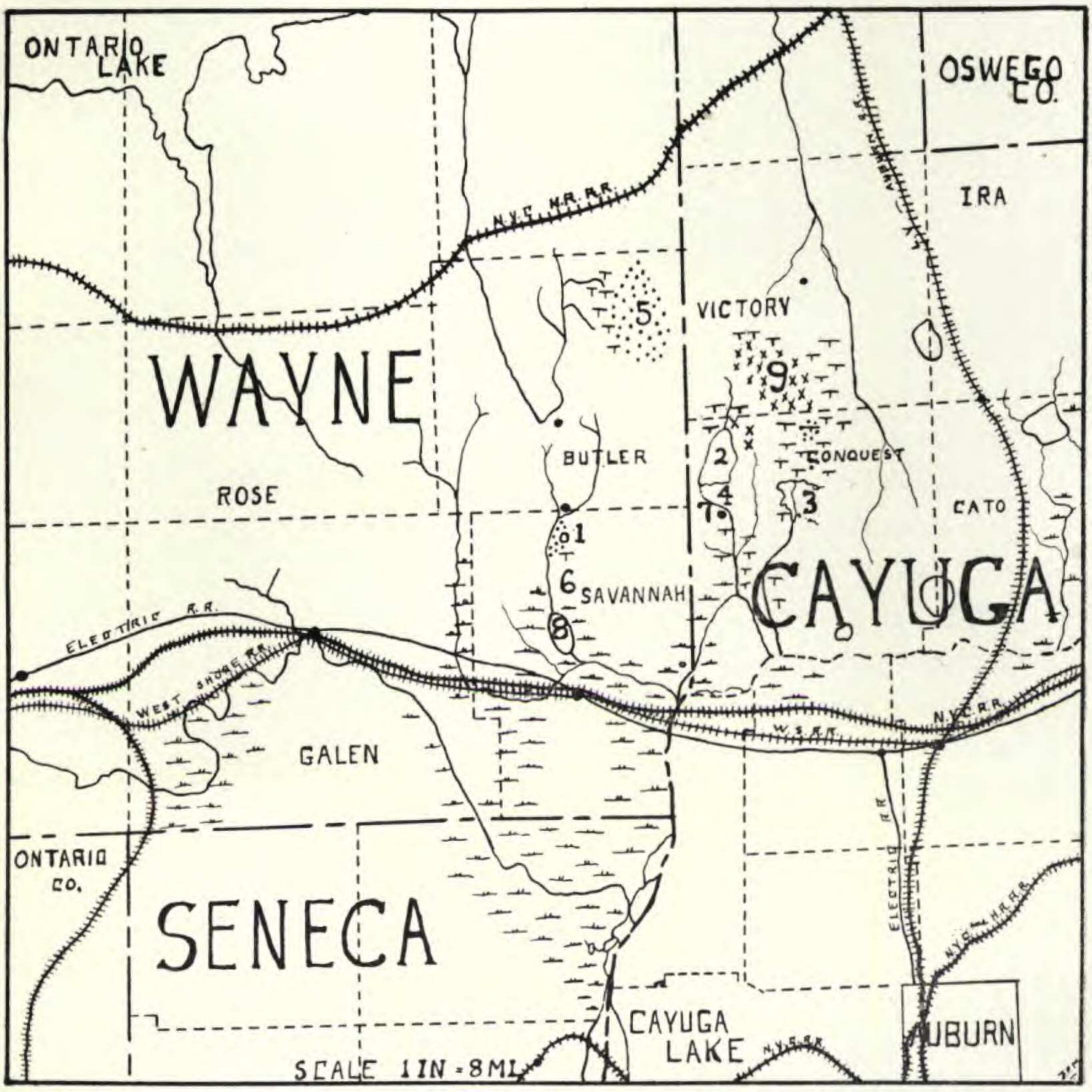
F. P. METCALF AND L. GRISCOM.

THE territory covered by these notes lies partly in Wayne and partly in Cayuga County, New York, roughly speaking about twenty miles north of Lake Cayuga. This region geologically is a plain which extends from Fort Niagara on the west to Oswego on the east, reaching back to the foothills of the inland plateau south of Syracuse and Buffalo. At one time this was entirely covered by the old Lake Iroquois. It is a drumlin country. Chains of small lakes or ponds are everywhere in the hollows, surrounded by swamps or prairies; sphagnum bogs are frequent; and where the ground is a little higher an unusual type of low rich woods is found, affording a rich collecting ground to the botanist. Two types of country not found in the Cayuga Lake Basin (to the south) are the open peaty prairie and the arbor-vitae swamp.

This region has proved to be exceedingly rich botanically. We venture to say that there are few places in the State where twenty-five species of orchids can be found in a few square miles of country as the result of three trips in one summer. Indeed on August 12, 1916, the writers observed twenty species of this interesting group. Fortunately for the botanist, the lack of large towns, and cities, has served to preserve the native flora to a remarkable extent. It is interesting to note that as would naturally be expected from its given position and topographical characteristics, the flora of this region bears a much greater similarity to that of Rochester and Buffalo than to that of the Cayuga Lake Basin.

Quite by chance this region was first visited by Prof. A. H. Wright and the junior author in June, 1915. No plants were collected, but the richness of the flora was so evident that careful exploration was planned for the following year. Accordingly Prof. Wright, Mrs. Wright, and the authors collected there extensively from June 9–13, 1916, bringing back nearly one hundred sheets of rare plants. On this as tangible evidence of the interest of the region, Prof. Wiegand and several other members of the botanical department of the State College of Agriculture collected there from July 1–4, Prof. Wright and the senior author serving as guides; and Prof. Wright and the authors also collected from Aug. 11 to Aug. 14.

This paper, therefore, embodies primarily the striking results of these collections. For the sake of brevity, it has seemed best to treat each plant-association separately, rather than to give a narrative account, trip by trip. All plants mentioned are rare as compared with their occurrence in the Cayuga Lake Basin proper further south.




MAP OF REGION DESCRIBED.

(1) Turtle Pond with Arbor Vitae Swamp — (2) Duck Lake, (3) Mud Pond, (4) Botrychium Woods N. of Spring Lake, (5) Westbury Prairie and Arbor Vitae Swamp, (6) Crusoe Prairie, (7) Miller's Bog, (8) Crusoe Lake, (9) Featherbed Bog.

Acknowledgments are due Prof. Wiegand for checking our identifications and for much assistance and advice in the preparation of this paper. To Prof. Wright of the Department of Zoölogy, our thanks are

warmly extended for the loan of rare local floras, invaluable cooperation in the field, and an enthusiasm which no circumstances or conditions could dampen.

The more interesting plant-associations are discussed in the following paragraphs, lack of time and study preventing a closer analysis. These association-types are so well known that it has seemed unnecessary to name the plants characteristic of each. Only the rarer ones are mentioned. At the end of the paper, detailed records are given for the rarer species, where the distribution of these throughout the state is recorded.

(1). DUCK LAKE. This is the only body of water of any size in the region. *Dianthera americana* and *Pontederia cordata* were growing on its banks in great abundance.

(2). DRY WOODED HILLSIDES. Characterized by several *Desmodiums*, *Lycopodium tristachyum* and *Habenaria Hookeri*. We were much surprised to find *Scrapias Helleborine* at two stations. The plants were small and scraggly.

(3). SWAMPS, AND ADJACENT SPRINGY PLACES. The only noteworthy plant in the swamps themselves was *Potentilla palustris*, and it was very scarce. But the borders yielded a great deal more. *Samolus floribundus* was common, *Habenaria flava* and *H. lacera* were frequent. *Spiranthes lucida* and *Muhlenbergia racemosa* were occasional. *Juncus canadensis* var. *subcaudatus* and *Gerardia paupercula*, the distribution of which in the State is little understood, were found growing together in one station. *Carex Grayii* was found in just one locality. The rare *Juncus Torreyi* was found in one place only, but was very abundant, growing luxuriantly, and covering almost an acre of ground.

(4). SWAMPY WOODS. The flora in these woods was rather limited. The lowest ground which was under water almost all summer, supported a luxuriant growth of *Calla palustris* and *Saururus cernuus*. On hummocks, just above water, *Mitella nuda* was frequent, while *Liparis Loeselii* and *Habenaria fimbriata* were occasional. *Milium effusum* and the rare *Glyceria melicaria* were occasional in open places.

(5). BOTRYCHIUM WOODS. These peculiar woods must be described separately. Lying a short distance northeast of Spring Lake, they are about a mile long and a quarter mile wide. The soil was deep black muck almost devoid of undergrowth. The trees, of which *Betula lutea* was the most noteworthy, grew so thick that the sun scarcely pene-

trated to the ground at any point. No less than five species of *Botrychium* were found here; the rare *B. simplex*, *B. ramosum*, *B. angustisegmentum*, *B. obliquum* var. *dissectum*, and *B. virginianum*. Except a few Lycopodiums, most of the undergrowth was composed of orchids. *Habenaria bracteata* was the least common; *Corallorrhiza maculata* was the most abundant. *Habenaria flava* was frequent. *Serapias Helleborine* was common, growing luxuriantly with large and highly colored flowers. The best find, however, was the dainty *Pogonia trianthophora*. Two patches were found, about four hundred plants in all, in each case growing under yellow birch. Nearly all the flowers oddly enough, were pure white.

(6). ARBOR-VITAE SWAMPS. These swamps of which there are two in the region, had considerable sphagnum in them, but the flora was so different from the ordinary bog flora, that it must be treated separately. The most striking feature was the great abundance of *Cypripedium hirsutum*. Many thousands of these plants were in full bloom on July 3rd, 1916, making a sight never to be forgotten. *Eriophorum viridi-carinatum* was abundant. *Habenaria clavellata*, *Pyrola asarifolia var. incarnata*, and the rare *Valeriana uliginosa* were common; *Triglochin palustris* was common in one place only. *Chiogenes hispidula* and *Pogonia ophioglossoides* were frequent. A very little *Scirpus hudsonianus* and *Habenaria hyperborea* were collected. A few plants of the rare *Pogonia trianthophora* were found on hummocks under the arbor-vitae. At this station the flowers were pink.

(7). SPHAGNUM BOGS. Besides the familiar bog heaths, several plants deserve mention. The borders were covered with a dense growth of *Cypripedium acaule* and *Smilacina trifolia*. White flowers of the former were by no means rare. *Habenaria clavellata* was abundant. *Bartonia virginica*, *Carex trisperma*, and *C. paupercula* var. *irrigua* were common. *H. blephariglottis* was frequent. Three plants of *Microstylis unifolia* were detected by Prof. Wright.

Out in the bogs proper the season witnessed an interesting succession of rare plants. In June *Eriophorum callitrix* filled all open places with occasional colonies of *Scheuchzeria palustris*. *Arethusa bulbosa* was found in one place only. Under the shade of the Vacciniums, *Pogonia verticillata* was common, though very few plants produced flowers. The best find, however, was *Listera australis*, which turned out to be common in two of the bogs. We had not even considered it as a possibility. The junior author, in proceeding from one open

place to another, was scrambling under a dense tangle of blueberry bushes, when a cluster of small brownish flowers appeared near his right foot. In this unscientific manner, the first plant was detected. Careful search on hands and knees revealed hundreds of scattered plants, but so inconspicuous is this species that many times the discoverer of some new plants would lose sight of them while waiting for the other members of the party to arrive. Even when he did not, the others would frequently have difficulty in finding them without assistance. It is unquestionably a difficult species to detect. The brownish flowers are just the color of the shadows, and the plant is usually buried in sphagnum up to the leaves. Our specimens varied from about 8 cm. to 3 dm. in height, the average height being about 1 dm. Occasional plants bore a third leaf.

Later in the season, *Pogonia ophioglossoides* and *Calopogon pulchellus* were in full bloom; *Woodwardia virginica* was common; and in August *Eriophorum virginicum* (both varieties) and *Rhynchospora alba* were nodding in all the open places.

(8). MILLER'S BOG. This bog, just north of the Miller farm at Spring Lake, differed from all others in having no open sphagnum and being very much grown up. The flora itself was very distinct. *Potentilla fruticosa, Lonicera oblongifolia, Myrica cerifera* and *M. Gale.* were common shrubs. *Salix candida* was present in small quantities. *Lathyrus palustris* and var. *myrtifolius* were climbing everywhere. *Arenaria lateriflora* was common. *Cladium mariscoides* and the rare *Eleocharis rostellata* were found nowhere else. *Triglochin maritimum,* which is very rare inland in this State, was frequent.

(9). THE WESTBURY PRAIRIE. This is a flat plain about one mile long by a quarter wide southwest of the town of Westbury, in Wayne Co. The soil was largely peat with about two inches of water; very little sphagnum was present. The chief growth was composed of sedges of various kinds, mainly *Carex filiformis.* In early July, the whole prairie was pink with *Calopogon* and *Pogonia,* a sight rivalling if not surpassing in beauty the appearance of these plants at the famous Mendon Ponds near Rochester. In August, *Aster junceus* was abundant, *Solidago uniligulata* and *Utricularia intermedia* were fairly common.

(10). OPEN MEADOW.— South of Butler along the edge of Crusoe Creek is a peculiar type of open meadow, which it is difficult to characterize. It was not so wet as the Westbury prairie, there was no sphagnum, and but little peat. In area it must have been several

square miles. Being well grown up with grasses and sedges, there was a curious jumble of plants, making it hard to define ecologically. *Parnassia caroliniana* was found here only. *Angelica atropurpurea* was common, and frequently reached a height of twelve feet. *Carex limosa, Triglochin palustris,* and *Hierochloë odorata,* the latter very rare in the interior of the State, were frequent. The great feature of this meadow, however, was the extreme abundance of the rare *Valeriana uliginosa.* Over several acres, the pure white corymbs of this plant was the characteristic vegetation. We have no hesitation in saying that there is enough *Valeriana* here to supply all the herbaria of the country. This rare plant in such abundance was indeed an inspiring sight.

The finding of so many rare species in so limited an area led the authors to investigate the status of these forms throughout the State. The bibliographical work necessary was largely undertaken by the senior author, as well as a careful examination of all local herbaria. Many stations are here published for the first time, including several omitted from territory covered by local floras. The writers were surprised to discover how few counties in the State have been explored at all thoroughly. The southwestern, and many of the northern counties still remain practically unknown botanically. The records given below are presented in the hope that they will stimulate interest in the flora of the State, and in the belief that a mere list of the rare plants from one restricted locality is of little general interest. The numerals after each record refer to the publications and herbaria consulted, a list of which is appended at the end of the paper.

BOTRYCHIUM SIMPLEX E. Hitchcock. Herkimer Co.[1]: State Marsh near Jerusalem Hill, Litchfield (2). Lewis Co.: Fenton's Fourth Lake, *Mrs. Barnes* (8), vi. 352. Oneida Co.: pasture near Fall Brook, W. of Fish Creek (2). Otsego Co.: Unadilla Forks, *Brown* (3). Rensselaer Co.: *Dr. Waas* (1). Orange Co.: Highlands on Hudson, *Dr. Barrett* (1). Suffolk Co.: Riverhead, *Miller* (11), 1872, p. 89; Wading River, *Miller* (8), iv. 42. On Long Island, and up Hudson Valley to Dutchess Co. (17). Chenango Co.: Oxford, *Coville* (3). Tompkins Co.: Danby, 1882, *F. C. C. & W. R. Dudley* (9). Onondaga Co.: Otisco, *S. N. Cowles* (11), 1872, p. 108; Syracuse, rare (5). Oswego Co.: near Oswego, *A. Wibbe,* also *C. S. Sheldon* (11), 1879, p. 53. Cayuga Co.: woods N. of Spring Lake, Conquest, June 10, 1916, *F. P. Metcalf, L. Griscom* (10).

BOTRYCHIUM ANGUSTISEGMENTUM (Pease & Moore) Fernald. Essex

[1] The counties are arranged geographically, starting with the most northern and going south to New York and Long Island and then working northwestward.

Co.: Cascadeville, *C. H. Peck* (11), 1886, p. 75. Oneida Co.: Utica, *B. D. Gilbert* (8), xi. 76; sandy mounds in pasture 3 miles N. of Taberg (2). Fulton Co.: near Northampton and Northville, *C. H. Peck* (11), 1879, p. 85. Rensselaer Co.: Petersburgh, *C. H. Peck* (11), 1883, p. 40. Ulster Co.: Pine Hill, *C. H. Peck* (11), 1879, p. 54; Sam's Point, *N. L. Britton* (8), x. 106. Westchester Co.: Lake Mohegan, *Leggett* (11), 1870, p. 101. Rockland Co.: Palisades, *C. F. Austin* (7), 1906, p. 229. Westchester and Rockland Cos.: increasing and becoming common northward (17). Chenango Co.: rather common, *Coville* (8), xii. 53. Cortland Co.: near Truxton, 1893, *K. M. Wiegand* (9). Tioga Co.: Oakley Corners, Oswego, July, 1911, *H. M. Mapes* (10). Tompkins Co.: near Danby, 1883, *W. R. Dudley* (9). Cayuga Co.: woods S. E. of Featherbed Bog, Victory, June 11, 1916, *F. P. Metcalf, L. Griscom, A. A. & A. H. Wright;* woods N. of Spring Lake, Conquest, June 10, 1916, *A. A. & A. H. Wright, L. Griscom, F. P. Metcalf* (10). Orleans Co.: Holley, *W. H. Lennon* (4). Chautauqua Co.: Cassadaga Lake (6).

BOTRYCHIUM RAMOSUM (Roth.) Aschers. Essex Co.: Ray Brook (11), 1890, p. 84; near Cascade Lake (11), 1899, p. 156. Lewis Co.: *Mrs. Barnes, W. W. Hill* (11), 1878, p. 65. Oneida Co.: Deerfield, *E. Hunt* (11), 1875, p. 90; ravine near Utica, *J. A. Paine, E. Hunt* (8), iii. 33; Utica, *B. D. Gilbert* (8), xi. 76. Rensselaer Co.: Petersburgh (11), 1883, p. 40. Reported but not definitely known, Long Island, otherwise known only from northern Westchester Co., northward (17). Chenango Co.: common, *Coville* (8) xii. 53. Cortland Co.: Truxton (3 stations) 1892, *K. M. Wiegand* (21). Tioga Co.: Oakland Corners, Owego, July, 1911, *H. M. Mapes* (10); near North Spencer, June, 1915, *E. Dean* (10). Tompkins Co.; McLean, *Dudley* (11), 1883, p. 40; Malloryville, 1881, *W. R. Dudley* (9). Cayuga Co.: woods E. of Mud Pond, Conquest, June 6 and 7, 1916, *A. A. & A. H. Wright, L. Griscom, F. P. Metcalf* (10); woods N. E. of Featherbed Bog, Victory, June 11, 1916, *A. A. & A. H. Wright, L. Griscom, F. P. Metcalf* (10). Wayne Co.: reported in (4); woods near Turtle Pond, Savannah, June 12, 1916, *A. A. & A. H. Wright, L. Griscom, F. P. Metcalf* (10). Monroe Co.: Henrietta, *F. B. Fuller;* Webster, *M. S. Baxter* (4). Orleans Co.: Holley, *W. H. Lennon* (4).

LYCOPODIUM TRISTACHYUM Pursh. Herkimer Co.: Grant, Ohio, Trenton and Grand View, *Haberer* (11), 1913, p. 37. Oneida Co.: Remsen, Hinckley, and Forestport, *Haberer* (11), 1913, p. 37; sandy oakwoods, near head of Oneida Lake, *Haberer & House* (11), 1913, p. 37. Throughout the range (17). Chemung Co.: wooded pastures, N. E. corner Van Etten, June 3, 1915, *A. J. Eames & L. H. MacDaniels* (10). Cortland Co.: Truxton, 1906, *K. M. Wiegand* (21). Cayuga Co.: woods on E. bank of Duck Lake, Conquest, June 10, 1916, *A. A. & A. H. Wright, L. Griscom, F. P. Metcalf,* and July 1, 1916, *A. J. Eames* (10).

SCHEUCHZERIA PALUSTRIS L. Franklin Co.: bog W. of Ampersand

Lake, 1899, *W. W. Rowlee, K. M. Wiegand, G. T. Hastings* (9). Herkimer Co.: Frankfort Hill (2). Oneida Co.: Summit Lake, Mud Lake, Hidden Lake, Swamps of Rome, Marshes of Point of Rock Lake, North Pond and North Woods, Wetmore's Pond, Bog near Oriskany (2). Rensselaer Co.: Cranberry Marsh, Sand Lake, *C. H. Peck* (11b), 1910, p. 72. Greene Co.: Tannersville (17). Dutchess Co.: Bingham Mt. (17). Broome Co.: Pond Brook, N. of Binghamton, *Clute* (3). Chenango Co.: MacDonough and Preston, *Coville* (3); Brisbin Swamp, 1887, *H. L. Stewart* (9). Onondaga Co.: Cicero Swamp, August 21, 1916, *K. M. Wiegand* (10). Oswego Co.: Granny's Orchard near Palermo, Bog at Williamstown, Bog near Long Bridge Pond, Paddy Lake near Scriba, 1891–95, *W. W. Rowlee* (9). Cayuga Co.: Featherbed Bog, Victory, June 11, 1916, *F. P. Metcalf, L. Griscom;* bogs north, N. E. and E. of Duck Lake, July 1, 1916, *F. P. Metcalf, L. H. MacDaniels* (10). Seneca Co.: Junius, *Sartwell* (12), also 1916 (10). Monroe Co.: Sphagnum Bogs, Mendon (4). Chautauqua Co.: Hanover (6).

TRIGLOCHIN MARITIMA L. Common along the coast of Long Island, New York City and Staten Island (17). Onondaga Co.: Salt Marshes, Salina, Onondaga Lake, *Cooper* (1), (5) and 1916, *K. M. Wiegand* (10). Oswego Co.: Mud Lake, Hannibal, 1894, *W. W. Rowlee* (9) and *H. D. House* (11), 1914, p. 48. Cayuga Co.: Miller's Bog near Spring Lake, Conquest, June 9, 1916, *L. Griscom, A. A. & A. H. Wright, F. P. Metcalf,* and June 30, 1916, *K. M. Wiegand, A. J. Eames* (10). Wayne Co.: reported in (4); abundant in arbor vitae-larch swamp and prairie, S. W. of Westbury, Butler, July 2, 1916, *K. M. Wiegand, A. H. Wright, F. P. Metcalf,* and August 12, 1916, *A. H. Wright, F. P. Metcalf, L. Griscom* (10).

TRIGLOCHIN PALUSTRIS L. Oneida Co.: Castle Swamp, *H. D. House* (11), 1913, p. 32. Madison Co.: Peeksport and Peterboro (11), 1913, p. 32. Shores of Long Island, (8), iii. p. 53. Onondaga Co.: marshes around Onondaga Lake, Salina and Liverpool, *Pursh* (1), and 1898, *G. T. Hastings* (9); marshy ground near Manlius Center, *C. H. Peck,* 1885, (5), also (11), 1880, p. 35; Green Lake, near Kirkville (11), 1913, p. 32. Seneca Co.: Junius, *Sartwell* (1), also 1883 (9), and 1916 (10). Wayne Co.: springy place N. of Crusoe Lake, Savannah, July 3, 1916, *A. J. Eames, F. P. Metcalf,* and along border of Crusoe Prairie, Savannah, October 5, 1916, *F. P. Metcalf, A. H. Wright* (10). Genesee Co.: West Bergen Swamp (2). Niagara Co.: Niagara; *Cooper* (1); Strawberry Island, Niagara River, *Clinton* (6). Erie Co.: near Buffalo, *Kinnicult* (1).

HIEROCLOË ODORATA (L.) Wahlenb. Kings Co.: vicinity of Erasmus Hall, *J. B. Zabriskie* (22a), 1835. On Long Island, Staten Island, and in the Bronx and Westchester Co., certainly known northward (17). Wayne Co.: *E. L. Hankenson* (4); Crusoe Prairie, N. of Crusoe Lake, Savannah, June 12, 1916, *F. P. Metcalf, L. Griscom, A. A. & A. H. Wright* (10). Monroe Co.: Sullivan's, *M. S. Baxter* (4b).

GLYCERIA MELICARIA (Michx.) Hubb. (*G. Torreyana* (Spreng.) Hitch.) Franklin Co.: Rustic Lodge, Saranac Lake, 1899, *W. W. Rowlee, K. M. Wiegand, G. T. Hastings* (9). Essex Co.: woods, swamps, Raybrook, North Elba (11a), 1899, p. 150. Oneida Co.: Valley of Mohawk, frequent (2); southern part of Co., common, *Gray* (2). Rensselaer Co.: Cranberry Marsh, Sand Lake, *C. H. Peck* (11b), 1910, p. 71. New York Co.: Tibbets' Brook, City Limits (8), vii. 114. Local in the Bronx, and on Long Island, increasing northward (17). Chenango Co.: McDonough 1884, *F. V. Coville* (21), Tioga Co.: swamp near Smithboro (3a). Cortland Co.: Thompson swamp, Truxton, 1896, *K. M. Wiegand* (9); Solon (1873) and Cuyler (1893), *K. M. Wiegand* (21). Cayuga Co.: West of Locke Pond, (?), *F. C. Curtice* (12); S. E. of Duck Lake, Conquest, June 11, and July 1, 1916, *F. P. Metcalf, L. Griscom* (10). Oswego Co.: S. W. of Williamstown, 1894, *W. W. Rowlee* (9); Fulton, 1889, *W. W. Rowlee* (9). Wayne Co.: S. of Turtle Pond, Savannah, June 12, 1916, *F. P. Metcalf, L. Griscom* (10). Monroe Co.: rare, *L. Holzer* (4). Erie Co.: reported in (6). Reported from the western part of the State, (2).

ELEOCHARIS ROSTELLATA Torr. Westchester Co.: reported in (17). Queens Co.: Flushing and Springfield, *T. F. Allen* (11), 1866, p. 205. Long Island, not uncommon (17). Onondaga Co.: common (5). Cayuga Co.: Miller's Bog near Spring Lake, Conquest, June 10, 1916, *F. P. Metcalf, L. Griscom, A. A. & A. H. Wright* (10). Seneca Co.: West side Cayuga Marshes, about Indian Salt Springs, Seneca Falls (12); Junius, about Lowery's and Newton's Ponds (12). Yates Co.: Penn Yan, *Sartwell* (1). Monroe Co.: Sullivan's *M. S. Baxter* (4b). Genesee Co.: common in swamp W. Bergen (15).

SCIRPUS HUDSONIANUS (Michx.) Fernald. Lewis Co.: *F. B. Hough* (22b), 1846; Cliffs of Black River, Leyden, 1912, *J. V. Haberer* (11), 1913, p. 38. Oneida Co.: Boonville, 1912, *J. V. Haberer* (11), 1913, p. 38; Oriskany Swamp, *Knieskern, Gray, Vasey* (2). Herkimer Co.: Hidden Lake, Litchfield; Mud Lake, *C. H. Peck* (2). Hamilton Co.: Elm Lake, *C. H. Peck* (11), 1913, p. 38. Warren Co.: Aiden Lair, *C. H. Peck* (11), 1913, p. 38. Madison Co.: Rippleton Swamp, 1894, *K. M. Wiegand* (21). Tompkins Co.: Round Marshes, 1879, *W. R. Dudley* (9), and 1916, *E. Dean, P. Munz.* Onondaga Co.: frequent (5). Oswego Co.: sphagnum swales beyond Rome, on both sides of county road (2); Mud Lake, Hannibal, 1895, *W. W. Rowlee* (9), and *H. D. House* (11), 1914, p. 48. Wayne Co.: *E. L. Hankenson* (4); Arbor Vitae swamp N. E. corner of Butler, July 3, 1916, *F. P. Metcalf, A. H. Wright* (10).

CAREX GRAYII Carey. Oneida Co.: meadows at Utica, 1834, *Dr. Gray* (2); above Utica, near Whitesboro (2); Oriskany, *Knieskern, Vasey* (2); Wood Creek, *T. Carey* (2). Greene Co.: New Baltimore, *Howe,* (11), 1869, p. 135. Westchester Co.: Hastings on Hudson, 1895, *Carrie Harrison* (9). Eastern New York, locally, *Fernald* (7),

iv. p. 229. Richmond Co.: reported in (17). New York Co.: reported in (17). Tioga Co.: Barton, *Fenno* (19). Cortland Co.: Truxton, 1894, *K. M. Wiegand* (21). Tompkins Co.: Renwick Park, Ithaca, 1896, *E. Carss* (9); Renwick Woods, Ithaca, July 21, 1916, *F. P. Metcalf* (10); Freeville, S. of Fir Tree swamp, 1882, *F. C. C. & W. R. Dudley* (12). Onondaga Co.: frequent (5); Minias, *Vasey* (9). Cayuga Co.: head of Owasco Lake, Moravia, 1879, *C. Atwood* (9). Wayne Co.: reported in (4), boggy ditch along roadside, W. of Howland's Island, Savannah, July 3, 1916, *K. M. Wiegand, F. P. Metcalf* (10). Monroe Co.: Valley of Genessee River (2); near Rochester, *C. Dewey, C. M. Booth, L. Holzer* (4). Wet places in central and western part of the State, rare in eastern part, *Peck & House* (13).

(*To be continued.*)

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A GLANDULAR FORM OF HIERACIUM PANICULATUM L.— The writer has collected in Berkshire County, Massachusetts, several specimens of *Hieracium paniculatum* L. which have the branches of the inflorescence and even the upper part of the stem covered with stipitate glands. Britton and Brown in their Illustrated Flora, page 330 describe this species as "quite glabrous or somewhat glandular." An examination of the material in the New England Botanical Club collection and the Gray Herbarium shows that the glandular form is found more commonly on the Alleghany upland than off it. As the glandular form seems thus to have a certain geographic significance the writer suggests setting it off under the following name:

HIERACIUM PANICULATUM L., forma **glandulosum**, nov. form., pedicellis et caule superiore glandulis vestitis. Specimens of this form have been collected in the following localities: Camden, Maine (*M. L. Fernald*); Breezy Point, New Hampshire (*E. F. Williams*); Townshend, Vermont (*L. A. Wheeler*); Sandisfield, Stockbridge, and Great Barrington, Massachusetts (*R. Hoffmann*); Providence, Rhode Island (*J. F. Collins*); Black Mountain, Kentucky (*T. H. Kearney, Jr.*).

In specimens of this form the hairs characteristic of the base of the stem are found clothing the greater part of the main stem. In nearly all specimens of the typical smooth form the involucral scales at least show a glandular tendency, but in extreme forms even the involucre is perfectly glabrous.— RALPH HOFFMANN, Kansas City, Missouri.